

WO 2005/058960

PA0394 PCT - Sequence Listing - PatentIn 3.2.ST25
SEQUENCE LISTING

<110> Amersham Biosciences UK Limited

<120> Cytochrome C Protein and Assay

<130> PA0394

<140> GB0329353.7

<141> 2003-12-19

<160> 15

<170> PatentIn version 3.2

<210> 1

<211> 315

<212> DNA

<213> Homo sapiens

```

<400> 1
atgggtgatg ttgagaaagg caagaagatt tttattatga agtgttccca gtgccacacc      60
gttgaaaagg gaggcaagca caagactggg ccaaatctcc atgggtctctt tgggcggaag    120
acagggtcagg cccctggata ctcttacaca gccgccaata agaacaaagg catcatctgg    180
ggagaggata cactgatgga gtatttggag aatcccaaga agtacatccc tggaacaaaa    240
atgatctttg tcggcattaa gaagaaggaa gaaagggcag acttaatagc ttatctcaaa    300
aaagctacta atgag                                     315

```

<210> 2

<211> 105

<212> PRT

<213> Homo sapiens

<400> 2

```

Met Gly Asp Val Glu Lys Gly Lys Lys Ile Phe Ile Met Lys Cys Ser
1           5           10           15

```

```

Gln Cys His Thr Val Glu Lys Gly Gly Lys His Lys Thr Gly Pro Asn
20           25           30

```

```

Leu His Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro Gly Tyr Ser
35           40           45

```

```

Tyr Thr Ala Ala Asn Lys Asn Lys Gly Ile Ile Trp Gly Glu Asp Thr
50           55           60

```

```

Leu Met Glu Tyr Leu Glu Asn Pro Lys Lys Tyr Ile Pro Gly Thr Lys
65           70           75           80

```

```

Met Ile Phe Val Gly Ile Lys Lys Lys Glu Glu Arg Ala Asp Leu Ile
85           90           95

```

```

Ala Tyr Leu Lys Lys Ala Thr Asn Glu
100           105

```

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

<210> 3
 <211> 1044
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic oligonucleotide

<400> 3
 atgagtaaag gagaagaact ttctactgga gttgtcccaa ttcttggtga attagatggt 60
 gatgttaatg ggcacaaatt ttctgtcagt ggagagggtg aaggatgatgc aacatacggg 120
 aaacttacct ttaaatttat ttgcactact ggaaaactac ctgttccatg gccaacactt 180
 gtcactactc tctcttatgg tgttcaatgc ttttcaagat acccagatca tatgaaacgg 240
 catgactttt tcaagagtgc catgcccga ggttatgtac aggaaagaac tatatttttc 300
 aaagatgacg ggaactacaa gacacgtgct gaagtcaagt ttgaagggtga tacccttggt 360
 aatagaatcg agttaaaggg tattgatttt aaagaagatg gaaacattct tggacacaaa 420
 ttggaataca actataactc acacaatgta tacatcatgg cagacaaaca aaagaatgga 480
 atcaaagtta acttcaaaat tagacacaac attgaagatg gaggcgttca actagcagac 540
 cattatcaac aaaatactcc aattggcgat ggccctgtcc ttttaccaga caaccattac 600
 ctgtccacac aatctgccct ttcgaaagat cccaacgaaa agagagacca catggtcctt 660
 cttggctttg taacagctgc tgggattaca catggcatgg atgaactata caaactcgag 720
 aattcgacca tgggtgatgt tgagaaaggc aagaagattt ttattatgaa gtgttcccag 780
 tgccacaccg ttgaaaaggg aggcaagcac aagactgggc caaatctcca tgggtctctt 840
 gggcggaaga caggtcaggc ccctggatac tcttacacag ccgccaataa gaacaaaggc 900
 atcatctggg gagaggatac actgatggag tatttggaga atcccgccaa gtacatccct 960
 ggaacaaaaa tgatctttgt cggcattaag aagaaggaag aaagggcaga cttaatagct 1020
 tatctcaaaa aagctactaa tgag 1044

<210> 4
 <211> 348
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 4

Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
 1 5 10 15

Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
 20 25 30

Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
 35 40 45

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Leu
 50 55 60

Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg
 65 70 75 80

His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
 85 90 95

Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
 100 105 110

Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
 115 120 125

Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
 130 135 140

Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
 145 150 155 160

Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Gly Val
 165 170 175

Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
 180 185 190

Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
 195 200 205

Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Gly Phe Val
 210 215 220

Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys Leu Glu
 225 230 235 240

Asn Ser Thr Met Gly Asp Val Glu Lys Gly Lys Lys Ile Phe Ile Met
 245 250 255

Lys Cys Ser Gln Cys His Thr Val Glu Lys Gly Gly Lys His Lys Thr
 260 265 270

Gly Pro Asn Leu His Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro
 275 280 285

Gly Tyr Ser Tyr Thr Ala Ala Asn Lys Asn Lys Gly Ile Ile Trp Gly
 290 295 300

Glu Asp Thr Leu Met Glu Tyr Leu Glu Asn Pro Ala Lys Tyr Ile Pro
 305 310 315 320

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

Gly Thr Lys Met Ile Phe Val Gly Ile Lys Lys Lys Glu Glu Arg Ala
 325 330 335

Asp Leu Ile Ala Tyr Leu Lys Lys Ala Thr Asn Glu
 340 345

<210> 5
 <211> 1041
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic oligonucleotide

<400> 5
 atgggtgatg ttgagaaagg caagaagatt tttattatga agtgttccca gtgccacacc 60
 gttgaaaagg gaggcaagca caagactggg ccaaactctcc atgggtctctt tgggcggaag 120
 acaggctcagg cccctggata ctcttacaca gccgccaata agaacaaagg catcatctgg 180
 ggagaggata cactgatgga gtatttggag aatcccgcga agtacatccc tggaacaaaa 240
 atgatctttg tcggcattaa gaagaaggaa gaaagggcag acttaatagc ttatctcaaa 300
 aaagctacta atgagggctg acccgggatg agtaaaggag aagaactttt cactggagtt 360
 gtcccaattc ttgttgaatt agatggtgat gttaatgggc acaaattttc tgtcagtgga 420
 gaggggtgaag gtgatgcaac atacggaaaa cttaccctta aatttatttg cactactgga 480
 aaactacctg ttccatggcc aacacttgtc actactctct cttatggtgt tcaatgcttt 540
 tcaagatacc cagatcatat gaaacggcat gactttttca agagtgccat gcccgaaggt 600
 tatgtacagg aaagaactat atttttcaaa gatgacggga actacaagac acgtgctgaa 660
 gtcaagtttg aagggtgatac ccttggtaat agaatcgagt taaaaggat tgattttaaa 720
 gaagatggaa acattcttgg acacaaattg gaatacaact ataactcaca caatgtatac 780
 atcatggcag acaaacaaaa gaatggaatc aaagttaact tcaaaattag acacaacatt 840
 gaagatggag gcgttcaact agcagaccat tatcaacaaa atactccaat tggcgatggc 900
 cctgtccttt taccagacaa ccattacctg tccacacaat ctgccctttc gaaagatccc 960
 aacgaaaaga gagaccacat ggtccttctt ggctttgtaa cagctgctgg gattacacat 1020
 ggcatggatg aactatacaa a 1041

<210> 6
 <211> 347
 <212> PRT
 <213> Artificial

<220>
 <223> Synthetic polypeptide

<400> 6

Met Gly Asp Val Glu Lys Gly Lys Lys Ile Phe Ile Met Lys Cys Ser
 1 5 10 15

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

Gln Cys His Thr Val Glu Lys Gly Gly Lys His Lys Thr Gly Pro Asn
 20 25 30

Leu His Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro Gly Tyr Ser
 35 40 45

Tyr Thr Ala Ala Asn Lys Asn Lys Gly Ile Ile Trp Gly Glu Asp Thr
 50 55 60

Leu Met Glu Tyr Leu Glu Asn Pro Ala Lys Tyr Ile Pro Gly Thr Lys
 65 70 75 80

Met Ile Phe Val Gly Ile Lys Lys Lys Glu Glu Arg Ala Asp Leu Ile
 85 90 95

Ala Tyr Leu Lys Lys Ala Thr Asn Glu Gly Arg Pro Gly Met Ser Lys
 100 105 110

Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp
 115 120 125

Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly
 130 135 140

Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly
 145 150 155 160

Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Leu Ser Tyr Gly
 165 170 175

Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg His Asp Phe
 180 185 190

Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe
 195 200 205

Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu
 210 215 220

Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys
 225 230 235 240

Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Tyr Asn Ser
 245 250 255

His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile Lys Val
 260 265 270

Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Gly Val Gln Leu Ala
 275 280 285

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val Leu Leu
 290 295 300

Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys Asp Pro
 305 310 315 320

Asn Glu Lys Arg Asp His Met Val Leu Leu Gly Phe Val Thr Ala Ala
 325 330 335

Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
 340 345

<210> 7
 <211> 1044
 <212> DNA
 <213> Artificial

<220>
 <223> synthetic oligonucleotide

<400> 7
 atgagtaaag gagaagaact ttctactgga gttgtcccaa ttcttgttga attagatggt 60
 gatgttaatg ggcacaaatt ttctgtcagt ggagagggtg aaggtgatgc aacatacggg 120
 aaacttaccc ttaaatttat ttgcactact ggaaaactac ctgttccatg gccaacactt 180
 gtcactactc tctcttatgg tgttcaatgc ttttcaagat acccagatca tatgaaacgg 240
 catgactttt tcaagagtgc catgcccgaagggtatgtac aggaaagaac tatatttttc 300
 aaagatgacg ggaactacaa gacacgtgct gaagtcaagt ttgaagggtga tacccttggt 360
 aatagaatcg agttaaaggg tattgatttt aaagaagatg gaaacattct tggacacaaa 420
 ttggaataca actataactc acacaatgta tacatcatgg cagacaaaca aaagaatgga 480
 atcaaagtta acttcaaaat tagacacaac attgaagatg gaggcgttca actagcagac 540
 cattatcaac aaaatactcc aattggcgat ggccctgtcc ttttaccaga caaccattac 600
 ctgtccacac aatctgcctt ttcgaaagat cccaacgaaa agagagacca catggtcctt 660
 cttggctttg taacagctgc tgggattaca catggcatgg atgaactata caaactcgag 720
 aattcgacca tgggtgatgt tgagaaaggc aagaagattt ttattatgaa gtgttcccag 780
 tgccacaccg ttgaaaaggg aggcaagcac aagactgggc caaatctcca tgggtctctt 840
 gggcggaaga caggtcaggc ccctggatac tcttacacag ccgccaataa gaacaaaggc 900
 atcatctggg gagaggatac actgatggag tatttggaga atccaagaa gtacatccct 960
 ggaacaaaaa tgatctttgt cggcattaag aagaaggaag aaagggcaga cttaatagct 1020
 tatctcaaaa aagctactaa tgag 1044

<210> 8
 <211> 348
 <212> PRT
 <213> Artificial

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

<220>

<223> Synthetic polypeptide

<400> 8

Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
 1 5 10 15

Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
 20 25 30

Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
 35 40 45

Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Leu
 50 55 60

Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg
 65 70 75 80

His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
 85 90 95

Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
 100 105 110

Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
 115 120 125

Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
 130 135 140

Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
 145 150 155 160

Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Gly Val
 165 170 175

Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
 180 185 190

Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
 195 200 205

Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Gly Phe Val
 210 215 220

Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys Leu Glu
 225 230 235 240

Asn Ser Thr Met Gly Asp Val Glu Lys Gly Lys Lys Ile Phe Ile Met
 245 250 255

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

Lys Cys Ser Gln Cys His Thr Val Glu Lys Gly Gly Lys His Lys Thr
 260 265 270

Gly Pro Asn Leu His Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro
 275 280 285

Gly Tyr Ser Tyr Thr Ala Ala Asn Lys Asn Lys Gly Ile Ile Trp Gly
 290 295 300

Glu Asp Thr Leu Met Glu Tyr Leu Glu Asn Pro Lys Lys Tyr Ile Pro
 305 310 315 320

Gly Thr Lys Met Ile Phe Val Gly Ile Lys Lys Lys Glu Glu Arg Ala
 325 330 335

Asp Leu Ile Ala Tyr Leu Lys Lys Ala Thr Asn Glu
 340 345

<210> 9
 <211> 1041
 <212> DNA
 <213> Artificial

<220>
 <223> Synthetic oligonucleotide

<400> 9
 atgggtgatg ttgagaaagg caagaagatt tttattatga agtggtccca gtgccacacc 60
 gttgaaaagg gaggcaagca caagactggg ccaaactctc atgggtctct tgggcggaag 120
 acaggctcagg cccctggata ctcttacaca gccgccaata agaacaaagg catcatctgg 180
 ggagaggata cactgatgga gtatttggag aatcccaaga agtacatccc tggaacaaaa 240
 atgatctttg tcggcattaa gaagaaggaa gaaagggcag acttaatagc ttatctcaaa 300
 aaagctacta atgaggggtcg acccgggatg agtaaaggag aagaactttt cactggagtt 360
 gtcccaattc ttgttgaatt agatgggtgat gttaatgggc acaaattttc tgtcagtgga 420
 gaggggtgaag gtgatgcaac atacggaaaa cttaccctta aatttatttg cactactgga 480
 aaactacctg ttccatggcc aacacttgct actactctct cttatgggtg tcaatgcttt 540
 tcaagatacc cagatcatat gaaacggcat gactttttca agagtgccat gcccgagggt 600
 tatgtacagg aaagaactat atttttcaaa gatgacggga actacaagac acgtgctgaa 660
 gtcaagtttg aagggtgata ccttggttaat agaatcgagt taaaagggtat tgatttttaa 720
 gaagatggaa acattcttgg acacaaattg gaatacaact ataactcaca caatgtatac 780
 atcatggcag acaacaaaaa gaatggaatc aaagttaact tcaaaattag acacaacatt 840
 gaagatggag gcgttcaact agcagaccat tatcaacaaa atactccaat tggcgatggc 900
 cctgtccttt taccagacaa ccattacctg tccacacaa ctgccctttc gaaagatccc 960
 aacgaaaaga gagaccacat ggtccttctt ggctttgtaa cagctgctgg gattacacat 1020

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25
ggcatggatg aactatacaa a

1041

<210> 10
<211> 347
<212> PRT
<213> Artificial

<220>
<223> Synthetic polypeptide

<400> 10

Met Gly Asp Val Glu Lys Gly Lys Lys Ile Phe Ile Met Lys Cys Ser
1 5 10 15

Gln Cys His Thr Val Glu Lys Gly Gly Lys His Lys Thr Gly Pro Asn
20 25 30

Leu His Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro Gly Tyr Ser
35 40 45

Tyr Thr Ala Ala Asn Lys Asn Lys Gly Ile Ile Trp Gly Glu Asp Thr
50 55 60

Leu Met Glu Tyr Leu Glu Asn Pro Lys Lys Tyr Ile Pro Gly Thr Lys
65 70 75 80

Met Ile Phe Val Gly Ile Lys Lys Lys Glu Glu Arg Ala Asp Leu Ile
85 90 95

Ala Tyr Leu Lys Lys Ala Thr Asn Glu Gly Arg Pro Gly Met Ser Lys
100 105 110

Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val Glu Leu Asp
115 120 125

Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu Gly Glu Gly
130 135 140

Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys Thr Thr Gly
145 150 155 160

Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Leu Ser Tyr Gly
165 170 175

Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg His Asp Phe
180 185 190

Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg Thr Ile Phe
195 200 205

Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val Lys Phe Glu
210 215 220

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile Asp Phe Lys
 225 230 235 240

Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn Tyr Asn Ser
 245 250 255

His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly Ile Lys Val
 260 265 270

Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Gly Val Gln Leu Ala
 275 280 285

Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro Val Leu Leu
 290 295 300

Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser Lys Asp Pro
 305 310 315 320

Asn Glu Lys Arg Asp His Met Val Leu Leu Gly Phe Val Thr Ala Ala
 325 330 335

Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
 340 345

<210> 11
 <211> 34
 <212> DNA
 <213> Artificial

<220>
 <223> synthetic oligonucleotide primer

<400> 11
 gttgaattcg accatgggtg atgttgagaa aggc

34

<210> 12
 <211> 37
 <212> DNA
 <213> Artificial

<220>
 <223> synthetic oligonucleotide primer

<400> 12
 gttgttgctg accttactca ttagtagctt ttttgag

37

<210> 13
 <211> 34
 <212> DNA
 <213> Artificial

<220>
 <223> synthetic oligonucleotide primer

<400> 13
 gttgttgctg accctcatta gtagcttttt tgag

34

PA0394 PCT - Sequence Listing - Patentin 3.2.ST25

<210> 14
<211> 41
<212> DNA
<213> Artificial

<220>
<223> Synthetic oligonucleotide primer

<400> 14
ggagtatttg gagaatcccg ccaagtacat ccctggaaca a 41

<210> 15
<211> 41
<212> DNA
<213> Artificial

<220>
<223> Synthetic oligonucleotide primer

<400> 15
ttgttccagg gatgtacttg gcgggattct ccaaatactc c 41